

Problems: Gray Leaf Spot - *Pyricularia grisea***Hosts:** Perennial Ryegrass

Description: Gray leaf spot (GLS) is inconsequential in landscape plantings because we just don't use much perennial ryegrass for home or commercial lawns. However, gray leaf spot is a major concern on golf course fairways and athletic fields because of the potential for extensive damage in a short period of time. Pathologists in the southern United States also report that another strain of the gray leaf spot fungus attacks tall fescue. Fortunately, we have not seen this in Kansas. Right now, the main concern is damage to perennial ryegrass.

Gray leaf spot develops in mid to late August. It still isn't clear why the disease doesn't develop at other times during the summer. The disease develops rapidly and is capable of killing large areas of turf. Symptoms of gray leaf spot may be confused with Pythium blight or Rhizoctonia brown patch. Initially, small areas of the turf may appear droughty. Small, tan to red spots develop on the leaf blades.

The spots may be numerous and coalesce to kill the leaf. Leaf blighting is followed by a rapid death of the ryegrass plant. Individual plants or clumps of ryegrass may escape damage and will be scattered through the blighted turf.

Also, any bluegrass or bentgrass in the turf will not be affected. The fungus has the potential to produce a large amount of inoculum in a hurry. By the time you note the symptoms, a substantial amount of damage will have already occurred to the turf. You may even note a continued decline and death of the turf immediately following fungicide applications. This is because many of the plants already affected by the disease will die anyway.

Recommendations: Certain cultural practices may help reduce GLS severity. Avoid excessive nitrogen fertilization during the late spring or summer months. Time irrigations to minimize leaf wetness periods, but avoid letting the turfgrass go under drought stress.

Some new cultivars of perennial ryegrass have demonstrated resistance to GLS, though it is not 100% disease control.

Cultural practices alone are unlikely to control GLS. Fungicide applications beginning in early- to mid-August and continuing through September at regular intervals may be required to prevent damage on golf course fairways and athletic fields. Although thiophanate methyl and the QoI fungicides (such as azoxystrobin and trifloxystrobin) provide the best control of GLS, their use should be managed to prevent the selection of fungicide resistant strains. Resistance to azoxystrobin has been documented in many states. While resistance to thiophanate-methyl has not yet been reported, other pathogens have shown resistance to this chemical, and it is considered at risk. Practice rotation or tank mixes with fungicides with different modes of action. See publication referenced below for specific fungicide recommendations.

References:

[Gray Leaf Spot](#), Purdue University Extension, BP-107-W

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